**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

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| Inventor: | Jeffrey F. Hatalsky, et al. | Atty.Dkt.No.: | 5957-63700 |
| Serial Number: | 10/696,600 | Examiner: | Shibru, Helen |
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| Title: | DYNAMIC COMPRESSION OF A VIDEO STREAM | Conf. No.: | 6849 |

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On: June 7, 2010 /Dean M. Munyon/
Date Dean M. Munyon, # 42,914

## APPEAL BRIEF

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir/Madam:

Further to the Notice of Panel Decision from Pre-Appeal Brief Review mailed May 7, 2010, Appellants present this Appeal Brief. **This Appeal Brief is timely filed; accordingly, no extension of time fee should be due.** Appellants respectfully request that the Board of Patent Appeals and Interferences consider this appeal.

## I. REAL PARTY IN INTEREST

The subject application is owned by Acoustic Technology LLC, a corporation organized and existing under and by virtue of the laws of the State of Delaware, and now having its principal place of business at 2215-B Renaissance Drive, Suite 5, Las Vegas, Nevada 89119.

## II. RELATED APPEALS AND INTERFERENCES

No related appeals or interferences are known which would directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

## III. STATUS OF CLAIMS

Claims 1-6, 8-13, and 15-22 are pending in the case and are the subject of this Appeal. Claims 7, 14, and 23-41 have been canceled. A copy of claims 1-6, 8-13, and 15-22, incorporating all entered amendments, as on appeal, is included in the Claims Appendix of this Appeal Brief.

## IV. STATUS OF AMENDMENTS

No amendments to the claims have been filed after the Final Office Action mailed { TA \l "Final Office Action" \s "Final Office Action" \c 8 }April 1, 2009 ("Final Office Action").

## V. SUMMARY OF THE CLAIMED SUBJECT MATTER

The present application relates to the field of image processing, and in some embodiments, to systems for editing film and/or video. Independent claim 1 is directed to a video-editing system. Independent claim 8 is directed to a method. Independent claim 15 is directed to a computer-readable memory medium.

Specifically, independent claim 1 is directed to a video-editing system **(*e.g.*, page 4, lines 16-22; paragraph [0027]; FIG. 1, editing system 10)**.[1] The system comprises a storage medium storing frames of a progressively-encoded video stream **(*e.g.*, page 4, lines 16-27; paragraphs [0027]-[0028]; FIG. 1, disks 12, disk controllers 14, sequence of frames 24; one or more progressively-encoded video files 18)**. Each frame includes corresponding frame data **(*e.g.*, page 4, lines 23-27; paragraph [0028]; FIG. 1, sequence of frames 24)**. The system also comprises a processing element in data communication with the storage medium **(*e.g.*, page 4, lines 16-22; paragraph [0027]; FIG. 1, processing element 20, system bus 16, disk controllers 14, disks 12)**. The processing element is configured to fetch frames of the video stream from the storage medium **(*e.g.*, page 4, lines 16-22; page 7, lines 5-14; paragraphs [0027] and [0037]; FIG. 1, processing element 20, system bus 16, disk controllers 14, disks 12, frames 24)**. The processing element is further configured to fetch a dynamically-determined extent of corresponding frame data for each of at least one of the frames in the video stream **(*e.g.*, page 6, lines 3-15; page 6, line 21—page 7, line 18; paragraphs [0033], [0034], and [0036]-[0038]; FIG. 4, small fraction 26; FIG. 5, smaller extents 26 and larger extents 28)**. A first dynamically-determined extent of corresponding frame data for a first frame is less than the entirety of the frame data for the first frame **(*e.g.*, page 6, lines 3-15; page 6, line 21—page 7, line 18; paragraphs [0033], [0034], and [0036]-[0038]; FIG. 4, small fraction 26; FIG. 5, smaller extents 26 and larger extents 28)**.

Independent claim 8 is directed to a method **(*e.g.*, page 7, line 5—page 8, line 6; paragraphs [0037]-[0042])**. One step of the method dynamically determines extents of frame data for corresponding stored frames in a video stream containing progressively-

[1] Note cites refer to the page and line numbers of the original patent application as filed as well as the paragraph number of the patent application as published (2005/0094967). Figures and detail numbers are provided where appropriate.

encoded frame data (***e.g.*, page 4, lines 23-27; page 6, lines 3-15; page 6, line 21—page 7, line 18; paragraphs [0028], [0033], [0034], and [0036]-[0038]; FIG. 1, one or more progressively-encoded video files 18; FIG. 4, small fraction 26; FIG. 5, smaller extents 26 and larger extents 28**). The dynamically determined extents include extents specifying less than the entirety of the frame data for their corresponding frames (***e.g.*, page 6, lines 3-15; page 6, line 21—page 7, line 18; paragraphs [0033], [0034], and [0036]-[0038]; FIG. 4, small fraction 26; FIG. 5, smaller extents 26 and larger extents 28**). Another step begins fetching the dynamically-determined extents of frame data for frames in the video stream (***e.g.*, page 7, lines 15-18; paragraph [0038]**). Yet another step displays a video stream including the fetched frames (***e.g.*, page 7, lines 19-22; page 8, lines 4-6; paragraphs [0039] and [0042]; FIG. 1, display 36**).

Independent claim 15 is directed to a computer-readable memory medium storing computer executable program instructions (***e.g.*, page 3, lines 14-18; paragraph [0018]; FIG. 1, display 36**). The program instructions fetch a dynamically-determined extent of frame data for one or more stored frames of progressively-encoded video data (***e.g.*, page 4, lines 23-27; page 6, lines 3-15; page 6, line 21—page 7, line 18; paragraphs [0028], [0033], [0034], and [0036]-[0038]; FIG. 1, one or more progressively-encoded video files 18; FIG. 4, small fraction 26; FIG. 5, smaller extents 26 and larger extents 28**). The dynamically-determined extent of frame data is less than the entirety of the available frame data for the one or more stored frames (***e.g.*, page 6, lines 3-15; page 6, line 21—page 7, line 18; paragraphs [0033], [0034], and [0036]-[0038]; FIG. 4, small fraction 26; FIG. 5, smaller extents 26 and larger extents 28**). The program instructions also display a video stream including the fetched frames (***e.g.*, page 7, lines 19-22; page 8, lines 4-6; paragraphs [0039] and [0042]; FIG. 1, display 36**).

The summary above describes various examples and embodiments of claimed subject matter. However, the claims are not necessarily intended to be limited to any of these specific examples and embodiments. The claims should instead be interpreted based on their own language.

## VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

1. Claims 1-5, 8, 10-13, 15, and 17-22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bannai (U.S. Patent No. 5,412,486) in view of Lane (U.S. Patent No. 5,377,051).

2. Claims 6, 9, and 16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bannai in view of Lane and further in view of Official Notice.

## VII. ARGUMENT

### 1. REJECTIONS UNDER 35 U.S.C. § 103 OVER BANNAI IN VIEW OF LANE

Claims 1-5, 8, 10-13, 15, and 17-22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bannai (U.S. Patent No. 5,412,486) in view of Lane (U.S. Patent No. 5,377,051). Final Office Action at 3. Appellant respectfully traverses.

#### a. Claims 1-3, 8, 10, and 15

Claims 2, 3, 8, 10, and 15 stand or fall with representative claim 1, which recites as follows:

> 1. A video-editing system comprising:
>
> a storage medium storing frames of a progressively-encoded video stream, each frame including corresponding frame data;
>
> a processing element in data communication with the storage medium, the processing element being configured to fetch frames of the video stream from the storage medium, wherein the processing element is configured to fetch a dynamically-determined extent of the corresponding frame data for each of at least one of the frames in the video stream, including a first dynamically-determined extent of corresponding frame data for a first frame, wherein the first dynamically-determined extent is less than the entirety of the frame data for the first frame.

Claim 1 thus recites, in part, a processing element configured to "*fetch ... a first dynamically-determined extent of corresponding frame data for a first frame [that] is less than the entirety of the frame data for the first frame*." The Examiner admits that Bannai does not teach or suggest this feature (Final Office Action at 3-4), and Appellant submits that Lane does not cure Bannai's deficiencies. Because the proposed combination does not include each and every feature of the claim, the Examiner has not established a *prima facie* case of obviousness. *See* MPEP 2143.03. In addition, the Examiner has failed to provide "some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *See In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006). As such, this proposed combination of references is improper. At least for these reasons, the 35 U.S.C. § 103(a) rejection of claim 1 over Bannai in view of Lane should be withdrawn.

**i. Lane does not teach or suggest "*fetch[ing] ... a first dynamically-determined extent of corresponding frame data for a first frame [that] is less than the entirety of the frame data for the first frame*"**

The Examiner provides two arguments for the proposition that Lane discloses "*fetch[ing] ... a first dynamically-determined extent of corresponding frame data for a first frame [that] is less than the entirety of the frame data for the first frame.*" First, the Examiner argues that "Lane teaches [a] demodulator [that] generates 8 bits of data (dynamically-determined extent) for every 10 bits of data (the entirety of the frame data) received from heads 440." Final Office Action at 2. Second, the Examiner argues that "during trick play reproduction, the I frame is less than the original frame." *Id.*; *See also* Advisory Action mailed July 1, 2009 ("Advisory Action"). These arguments are addressed in turn below.

1. 8-10 Modulation/Demodulation

With respect to the Examiner's first argument, Appellant points out that Lane is directed to a video tape recorder that uses one or more heads to record data on magnetic tape. *E.g.*, Lane at 16:27-35; 37:40-55. Lane describes its tape recording process as follows:

> [M]odulation circuit **320** performs 8-10 modulation on the contents of each data block. Thus, 10 bits of data are generated by the modulation circuit **320** for each 8 bits of data in each data block ... The output of the modulation circuit **320** is coupled to the heads **340** providing them with the signal which is actually recorded on tape.

Lane at 52:39-49. Lane then goes on to describe its tape playback process:

> The heads read the recorded data on the tape 11 as they pass over the various tape segments which comprise the tape's data tracks.... The demodulator circuit **401** receives the data read by the heads **440** and demodulates the signal in accordance with the 8-10 modulation scheme used prior to recording the data.

Lane at 52:61-68. Lane thus teaches retrieving 10 bits from tape 11 via heads 440 and demodulating those 10 bits to produce 8 bits of data. Appellant submits that retrieving from heads 440 precisely what was stored there (a group of 10 bits) does not teach or suggest a "processing element [] configured to fetch [an] extent [that] is less than the entirety of the frame data for the first frame." In other words, to the extent the Examiner is suggesting that a group of 10 bits is the entirety of the "*frame data for the first frame*," retrieval of those 10 bits does not teach or suggest the "*processing element*" of claim 1. Still further, the retrieval of those 10 bits does not teach or suggest a "processing element configured to fetch a dynamically-determined extent" as in claim 1.

To the extent that the Examiner is suggesting that Lane's demodulator 401's generation of "8 bits of data for every 10 bits of data received from the heads 440," Lane at 53:1-3, Appellant submits that always converting 10 bits to 8 bits does not teach or suggest a "*processing element*[] *configured to fetch a dynamically-determined extent of [] corresponding frame data*" as recited in claim 1.

To help make this point, FIG. 5 of Appellant's specification is shown below:

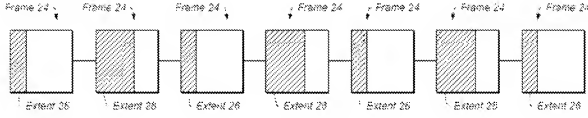


FIG. 5

FIG. 5 illustrates a non-limiting example of "*fetch[ing] a dynamically-determined extent[s] of [] corresponding frame data*." Because extents of FIG. 5 are a type of a "*dynamically-determined extent*," in this embodiment, the extents are permitted to vary (*e.g.*, compare extent 26 with extent 28, which is larger). For example, in another embodiment described with respect to FIG. 4, the specification provides that:

> In the first few frames, the editor has specified that only a small fraction 26 of frame data be fetched from each frame 24. This will result in the display of an image having significant image degradation. However, later

> on, the editor has become more interested in the video stream represented by this video file 18. As a result, the editor has requested that a greater fraction 28 of the frame data be fetched from the latter frames.

Specification at 6:3-11. (These embodiments are not intended to limit the scope of any claim, but only to illustrate that embodiments described in the specification are very different from anything taught or suggested by Lane.)

In contrast with the foregoing, Lane's demodulator 401 always retrieves 8 bits out of 10 bits—a fixed ratio. Accordingly, Lane's demodulator 401 does not teach or suggest a "*processing element*[] *configured to fetch a dynamically-determined extent of [] corresponding frame data*," as recited in claim 1.

2. I-frames

Lane states as follows:

> MPEG utilizes data structures known as frames. A frame contains picture information and defines one complete video picture.... According to the MPEG compression algorithm, frames are classified into one of three types: intracoded frames (I-frames), predictively coded frames (P-frames), and bidirectionally coded frames (B-frames).

Lane at 6:64-7:4. Appellant submits that, according to Lane's definition, an I-frame is just that—an entire frame. During "trick play operation" (*e.g.*, fast-forward, etc.), Lane's device may not read all available I-frames, but for those I-frames that Lane does read, the entirety of each frame is read. *E.g.*, Lane at 36:11-14. Therefore, Lane's use of I-frames does not teach or suggest "*a processing element ... configured to fetch ... less than the entirety of the frame data for the first frame*," as recited in claim 1.

In the advisory action, the Examiner provided some clarification on this argument:

> An I-frame is used to generate at least one of the frames in the video stream. In other words, the I-frame is reduced dynamically to generate P and B frames. The compression of P-frames relies on temporal prediction from previous I or P frames and the B-frame is generated from adjacent I or P frames. The reduction of the I-frame is not stative [sic] and when the

> I-frame is reduced, it will be come less than the entirety of the first frame. Therefore the Cited reference in fact teaches fetching a dynamically extent of the frame data.

Advisory Action at 2. Thus, the Examiner appears to argue that, in MPEG compression, an I-frame is "dynamically reduced" to generate P and B frames. Here it should be noted that Appellant's specification acknowledges the existence of compression techniques such as the MPEG standard. Specification at 1:22-26. The specification also states that one of the disadvantages of using compression at a predetermined ratio is that "[t]he extent of [] degradation is determined at the time of compression, and cannot be adjusted in response to changing circumstances." Specification at 2:2-3.

In any event, the purported "reduction" of an I-frame during MPEG compression is simply not pertinent to claim 1. Claim 1 recites, in relevant part, "*fetch[ing] a dynamically-determined extent of [] corresponding frame data*." Meanwhile, the compression theory put forth by the Examiner would take place *before* data is stored, not during retrieval. *See* Advisory Action at 2 ("An I-frame is used to *generate* at least one of the frames...," "the I-frame is reduced dynamically to *generate* P and B frames...," "[t]he *compression* of P-frames...," "the B-frame is *generated* from adjacent I or P frames....").

Stated another way, the Examiner's argument that Lane's "compressed frame" may have been reduced from some other "original frame" is irrelevant because such compression would have happened before storage, and thus not in connection with "fetching." Therefore, Lane's use of I-frames does not teach or suggest "*fetch[ing] a dynamically-determined extent of [] corresponding frame data*," as recited in claim 1.

### ii. The Examiner has not provided "some articulated reason with some rational underpinning" for combining the references

The Patent Office requires "some articulated reason with some rational underpinning" with respect to obviousness rejections:

> The key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been

> obvious. The Supreme Court in KSR noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Federal Circuit has stated that 'rejections on obviousness cannot be sustained with mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.' *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006). *See also KSR*, 550 U.S. [398 (2007)] (quoting Federal Circuit statement with approval).

MPEP § 2142 (Establishing a *Prima Facie* Case of Obviousness). Here, the full extent of the Examiner's reasoning for combining Bannai with Lane is as follows:

> [I]t would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Bannai by determining an extent dynamically where the extent is less than the frame data for the first frame *in order to reduce an error*.

Final Office Action at 4. Applicant respectfully submits that the Examiner's statement does not rise to the level of "articulated reasoning" described above. As a threshold matter, the nature of the "error" being referring to in the Final Office Action is entirely unclear. Furthermore, the Examiner has not explained (nor is it apparent) how "determining an extent dynamically" is supposed to reduce this error. Still further, Bannai describes the processing of still images, s*ee, e.g.*, Bannai at Abstract; 2:55-3:31 (facsimile); 7:51-65 (printer); 8:32-39 (sheet of paper); and 17:22-18-25 (soft copy). Specifically, Bannai performs progressive encoding of still pictures that are stored in a database as reduced resolution images. *See* Bannai at 5:34-37; 6:34-41. On the other hand, Lane is concerned with the design of a video tape recorder, and does not seem to be at all concerned with progressively-encoded data. *See* Lane at Abstract; FIG. 10(a); FIG. 11. Given the disparate nature of these references, it is by no means clear how these references would be combined, or for what reason. Appellant respectfully submits that combining the teachings of such disparate references simply "to reduce an error" is improper, and the Examiner has not established a *prima facie* case of obviousness.

Accordingly, the rejection under 35 U.S.C. § 103(a) of claim 1 based on Bannai and Lane should be withdrawn.

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For at least the reasons stated above, Appellant submits that the combination of references proposed by the Examiner does not include each and every feature of claim 1, and that the proposed combination is itself improper. Accordingly, the Examiner's rejections of claim 1 and its dependent claims are believed to be in error. The rejections of the other independent claims in this group and any respective dependent claims are also believed to be in error for at least reasons similar to those provided in support of claim 1.

**b. Claims 4, 12, and 19**

Appellant respectfully submits that claims 4, 12, and 19 are patentable at least for the same reasons as their respective independent claims. In addition, claims 12 and 19 stand or fall with representative claim 4, which recites as follows:

> 4. The system of claim 1, wherein the processing element is configured to execute an editing process to dynamically determine the extents on the basis of traffic on a data transmission channel providing data communication between the processing element and the storage medium.

Claim 4 thus recites, in part, "*dynamically determin[ing] the extents on the basis of traffic on a data transmission channel providing data communication between the processing element and the storage medium.*" The Examiner appears to rely upon Bannai as disclosing this claimed element. Final Office Action at 5. However, the portions of Bannai cited by the Examiner are completely silent about taking "traffic on a data transmission channel" into consideration for any purpose. *See* Bannai at FIG. 1; 7:56—8:19. Appellant has been unable to locate any other passage of Bannai or Lane that would seem to teach or suggest this claimed feature. Accordingly, Appellant asserts that a combination of Bannai with Lane, even if proper, would not teach or suggest every element of claim 4. Moreover, Appellant also asserts that the proposed combination of Bannai with Lane is not properly articulated for at least the reasons presented above. At a minimum, Appellant submits that the Examiner has not properly established the basis for the rejection.

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For at least the reasons stated above, Appellant submits that the combination of references proposed by the Examiner does not include each and every feature of claim 4, and that the proposed combination is itself improper. Accordingly, the Examiner's rejections of claim 4 and the other claims in this group are also believed to be in error for at least reasons similar to those provided in support of claim 4.

**c. Claims 5, 13, and 20**

Appellant respectfully submits that claims 5, 13, and 20 are patentable at least for the same reasons as their respective independent claims. In addition, claims 13 and 20 stand or fall with representative claim 5, which recites as follows:

> 5. The system of claim 1, wherein, in response to detection of a pause in displaying of the video stream, the processing element is configured to execute an editing process to fetch previously unfetched portions of the frame data for a currently displayed frame.

Claim 5 thus recites, in part, "*fetch[ing] previously unfetched portions of the frame data for a currently displayed frame ... in response to detection of a pause*." The Examiner appears to rely upon both Bannai and Lane as disclosing this claimed element. Final Office Action at 5. However, the portions of Bannai and Lane cited by the Examiner are completely silent about fetching previously unfetched portions of the frame data for a currently displayed frame in response to detection of a pause. *See* Bannai at FIG. 1; 8:62-9:23; Lane at 53:63-54:25. In fact, the word "pause" nowhere appears in either reference. Accordingly, Appellant asserts that a combination of Bannai with Lane, even if proper, would not teach or suggest every element of claim 5. Moreover, Appellant also asserts that the proposed combination of Bannai with Lane is not properly articulated for at least the reasons presented above. At a minimum, Appellant submits that the Examiner has not properly established the basis for the rejection.

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For at least the reasons stated above, Appellant submits that the combination of references proposed by the Examiner does not include each and every feature of claim 5,

and that the proposed combination is itself improper. Accordingly, the Examiner's rejections of claim 5 and the other claims in this group are also believed to be in error for at least reasons similar to those provided in support of claim 5.

**d. Claims 11 and 18**

Appellant respectfully submits that claims 11 and 18 are patentable at least for the same reasons as their respective independent claims. In addition, claim 18 stands or falls with representative claim 11, which recites as follows:

> 11. The method of claim 8, wherein said dynamically determining includes receiving an instruction specifying a desired image quality; and selecting an extent consistent with the desired image quality.

Claim 4 thus recites, in part, "*receiving an instruction specifying a desired image quality; and selecting an extent consistent with the desired image quality.*" The Examiner appears to rely upon Bannai as disclosing this claimed element. Final Office Action at 5. However, the portions of Bannai cited by the Examiner seem to describe a "display summary" that does not teach or suggest an "instruction specifying a desired image quality," as recited in claim 11. *See* Bannai at FIG. 4; 6:4-29. Appellant has been unable to locate any other passage of Bannai or Lane that would seem to teach or suggest this claimed feature. Accordingly, Appellant asserts that a combination of Bannai with Lane, even if proper, would not teach or suggest every element of claim 11. Moreover, Appellant also asserts that the proposed combination of Bannai with Lane is not properly articulated for at least the reasons presented above. At a minimum, Appellant submits that the Examiner has not properly established the basis for the rejection.

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For at least the reasons stated above, Appellant submits that the combination of references proposed by the Examiner does not include each and every feature of claims 11 and/or 18, and that the proposed combination is itself improper. Accordingly, the Examiner's rejections of claims 11 and 18 are believed to be in error.

**e. Claim 17**

Appellant respectfully submits that claim 17 is patentable at least for the same reasons as independent claim 15. In addition, claim 17 recites as follows:

> 17. The computer-readable memory medium of claim 15, wherein the program instructions are executable to receive a user-specified indication of the extent.

The Examiner appears to group this claim with one or more of claims 3-5. Final Office Action at 5. Applicant respectfully points out that claim 17 specifically recites "*receiv[ing] a user specified indication of the extent*," and that claims 3-5 do not contain the same limitation. Accordingly, the rejection of claim 17 is improper. Appellant has been unable to locate any other passage of Bannai or Lane that would seem to teach or suggest this claimed feature. Accordingly, Appellant asserts that a combination of Bannai with Lane, even if proper, would not teach or suggest every element of claim 17. Moreover, Appellant also asserts that the proposed combination of Bannai with Lane is not properly articulated for at least the reasons presented above. At a minimum, Appellant submits that the Examiner has not properly established the basis for the rejection.

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For at least the reasons stated above, Appellant submits that the combination of references proposed by the Examiner does not include each and every feature of claim 17, and that the proposed combination is itself improper. Accordingly, the Examiner's rejection of claim 17 is believed to be in error.

**f. Claims 21 and 22**

Appellant respectfully submits that claims 21 and 22 are patentable at least for the same reasons as their respective independent claims. In addition, claim 22 stands or falls with representative claim 21, which recites as follows:

21. The system of claim 1, wherein the dynamically-determined extents of the corresponding frame data for the at least one of the frames in the video stream include varying extents of frame data.

Claim 21 thus recites, in part, "*dynamically-determined extents ... [that] include varying extents of frame data.*" The Examiner appears to rely upon Lane as disclosing this claimed element. Final Office Action at 6. However, the only portion of Lane cited by the Examiner is reproduced in its entirety below:

> Accordingly, the demodulator 401 generates 8 bits of data for every 10 bits of data received from the heads 440 and outputs this data in the form of a stream of normal and trick play data blocks. The data block output of the demodulator 401 Is coupled to the data unshuffling circuit 402 which re-orders the data in the received data blocks to undo the data shuffling which was performed prior to recording the data. By unshuffling the data in the data blocks, any burst errors which occurred when recording data to, or reading data from, the tape 1 will be distributed throughout the data protected by each set of ECC bits.

Lane at 53:1-12. This passage does not teach or suggest the claimed element because always "generating 8 bits for every 10 bits of data" does not result in "*varying extents of frame data*," as recited in claim 21. Instead, "generating 8 bits for every 10 bits" results in a *fixed* extent of frame data having 8 bits. Appellant has been unable to locate any other passage of Bannai or Lane that would seem to teach or suggest this claimed feature. Accordingly, Appellant asserts that a combination of Bannai with Lane, even if proper, would not teach or suggest every element of claim 21. Moreover, Appellant also asserts that the proposed combination of Bannai with Lane is not properly articulated for at least the reasons presented above. At a minimum, Appellant submits that the Examiner has not properly established the basis for the rejection.

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For at least the reasons stated above, Appellant submits that the combination of references proposed by the Examiner does not include each and every feature of claims 21 and/or 22, and that the proposed combination is itself improper. Accordingly, the Examiner's rejections of claims 21 and 22 are believed to be in error.

## 2. REJECTION UNDER 35 U.S.C. § 103 OVER BANNAI IN VIEW OF LANE AND OFFICIAL NOTICE

Claims 6, 9, and 16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bannai in view of Lane and further in view of Official Notice. Final Office Action at 6. In response, Appellant respectfully submits that claims 6, 9, and 16 are patentable at least for the same reasons as their respective independent claims. Additionally, claims 9 and 16 stand or fall with representative claim 6, which recites as follows:

> 6. The system of claim 1, wherein the stored frames include wavelet-transform encoded data.

In support of the rejection, the Examiner states that:

> Bannai teaches filtering and subsampling fine-line edges. Official Notice is taken that it is [sic] well known in the art at the time the invention was made to provide frames containing wavelet-transform encoded data **in order to extract edges**.

Final Office Action at 6 (emphasis added). However, Bannai's stated objective is to preserve edges:

> FIG. **12** illustrates a subsampling operation ... **it is necessary to preserve information**, such as line or the like, irrespective of the sampling position. By performing exception processing in addition to the reduction processing by filtering and subsampling, information, **such as fine-line edges**, isolated points and the like, is preserved.

Bannai at 10:1-35 (emphasis added). Therefore, Appellant submits that Bannai teaches away from a combination with the Examiner's Official Notice at least because Bannai aims to preserve edges, whereas the wavelet transform of the Examiner's Official Notice eliminates them. *See* MPEP § 2141.02. And at least for the same reasons, Appellant submits that the Examiner's proposed combination of Bannai with Official Notice would change Bannai's principle of operation. *See* MPEP § 2143.01. As such, the Examiner's combination of Bannai in view of Lane and Official Notice is improper. Appellant also asserts that the proposed combination of Bannai with Lane is not properly articulated for at least the reasons presented above.

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For at least the reasons stated above, Appellant submits that the combination of references proposed by the Examiner is improper. Accordingly, the Examiner's rejections of claim 6 and the other claims in this group are also believed to be in error for at least reasons similar to those provided in support of claim 6.

**CONCLUSION**

For the foregoing reasons, it is submitted that the Examiner's rejection of claims 1-6, 8-13 and 15-22 was erroneous, and reversal of his decision is respectfully requested.

The Commissioner is authorized to charge the appeal brief fee of $540.00 and any other fees that may be due to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 501505/5957-63700/DMM.

If any extension of time (under 37 C.F.R. § 1.136) is necessary to prevent the above-referenced application from becoming abandoned, Appellant hereby petitions for such extension.

Respectfully submitted,

Date: June 7, 2010

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## VIII. CLAIMS APPENDIX

The following lists claims 1-6, 8-13 and 15-22, incorporating entered amendments, as on appeal.

1. A video-editing system comprising:

a storage medium storing frames of a progressively-encoded video stream, each frame including corresponding frame data;

a processing element in data communication with the storage medium, the processing element being configured to fetch frames of the video stream from the storage medium, wherein the processing element is configured to fetch a dynamically-determined extent of the corresponding frame data for each of at least one of the frames in the video stream, including a first dynamically-determined extent of corresponding frame data for a first frame, wherein the first dynamically-determined extent is less than the entirety of the frame data for the first frame.

2. The system of claim 1, wherein the processing element comprises a decoder configured to transform the fetched frame data into a form suitable for display on a display device.

3. The system of claim 1, wherein the processing element is configured to execute an editing process for receiving instructions specifying the dynamically-determined extents.

4. The system of claim 1, wherein the processing element is configured to execute an editing process to dynamically determine the extents on the basis of traffic on a data transmission channel providing data communication between the processing element and the storage medium.

5. The system of claim 1, wherein, in response to detection of a pause in displaying of the video stream, the processing element is configured to execute an editing process to

fetch previously unfetched portions of the frame data for a currently displayed frame.

6. The system of claim 1, wherein the stored frames include wavelet-transform encoded data.

8. A method, comprising:

dynamically determining extents of frame data for corresponding stored frames in a video stream containing progressively-encoded frame data, wherein the dynamically determined extents include extents specifying less than the entirety of the frame data for their corresponding frames;

in response to said determining, begin fetching, for frames in the video stream, the dynamically-determined extents of frame data; and

displaying a video stream including the fetched frames.

9. The method of claim 8, wherein the stored frames include wavelet-transform encoded representations of images.

10. The method of claim 8, wherein said dynamically determining includes receiving an instruction specifying one or more extents.

11. The method of claim 8, wherein said dynamically determining includes receiving an instruction specifying a desired image quality; and selecting an extent consistent with the desired image quality.

12. The method of claim 8, wherein said dynamically determining includes monitoring data traffic on a transmission channel; and determining extents to retrieve based at least in part on the monitoring.

13. The method of claim 8, further comprising: in response to determining that said displaying of the fetched frames is paused, fetching unfetched portions of the frame data for a currently displayed frame.

15. A computer-readable memory medium storing program instructions that are computer executable to:

fetch a dynamically-determined extent of frame data for one or more stored frames of progressively-encoded video data, wherein the dynamically-determined extent of frame data is less than the entirety of the available frame data for the one or more stored frames; and

displaying a video stream including the fetched frames.

16. The computer-readable memory medium of claim 15, wherein the frames contain wavelet transform encoded representations of images and the program instructions are executable to decode wavelet-transform encoded images.

17. The computer-readable memory medium of claim 15, wherein the program instructions are executable to receive a user-specified indication of the extent.

18. The computer-readable memory medium of claim 15, wherein the program instructions are executable to receive a user-specified indication of a desired image quality, and to select the extent consistent with the desired image quality.

19. The computer-readable memory medium of claim 15, wherein the program instructions are executable to monitor data traffic on a transmission channel; and to select the extent to retrieve based at least in part on the traffic.

20. The computer-readable memory medium of claim 15, wherein the program instructions are executable to determine that the display of the fetched frames is paused, and, in response thereto, fetch unfetched portions of the frame data for a currently displayed frame.

21. The system of claim 1, wherein the dynamically-determined extents of the corresponding frame data for the at least one of the frames in the video stream include varying extents of frame data.

22. The method of claim 8, further comprising varying the extent of frame data fetched for different frames in the video stream.

## IX. EVIDENCE APPENDIX

No evidence submitted under 37 CFR §§ 1.130, 1.131 or 1.132 or otherwise entered by the Examiner is relied upon in this appeal.

## X. RELATED PROCEEDINGS APPENDIX

There are no related proceedings.